

Craighead Environmental Research Institute

Monthly Progress Report: September, 2008

for the Montana Department of Transportation and Western
Transportation Institute

Bozeman Pass Wildlife Monitoring

MSU banner number 426899

1 September 2008 – 30 September 2008

Task 1: Road Kill Surveys during September 2008

Road kill surveys were conducted between Bozeman and Jackson Creek. Surveys were conducted on both sides of I-90 from Bozeman to Jackson Creek and back for a total of 22 miles round trip and an estimated 1 hour of labor per survey. Thirteen (13) road-kill surveys were driven during September of 2008. Three (3) of those recorded no new road-kill. This equals 286 miles driven in September for this subcontract. Totals of animals killed between Bozeman and Livingston were:

Bozeman Pass Roadkill Totals	September
Species	Number
Badger	0
Beaver	0
Bobcat	0
Bird Spp.	0
Black Bear	0
Cowbird	0
Coyote	0
Crow	0
Deer species	4
Dog	0
Domestic cat	3
Elk	1
Great Horned Owl	0
Ground Squirrel	0
Harrier	0
Hungarian (Gray) Partridge	0
Long-eared Owl	0
Magpie	0
Mallard	1

Marmot	0
Meadowlark	0
Mink	0
Moose	0
Mule Deer	2
Pigeon	0
Porcupine	2
Rabbit	0
Raven	0
Raccoon	1
Red Fox	1
Ruffed Grouse	0
Snowshoe Hare	0
Skunk	5
Small mammal spp.	4
Weasel	0
White Tail Deer	2

Task 2: Track bed monitoring at the MRL Bridge in September 2008

Two track bed sessions were completed in September. The majority of large animal tracks were deer. The area in the center of the track bed which was improved with a drainage pipe in July has prevented erosion of the track bed during several large rainstorms. Track bed use (and underpass crossings) seemed to have remained high in September. Crossings per day during the first session were 3, 28, 7, and 11. Crossings per day during the second session were 28, 1, 16, and 8.

Task 3: Photo monitoring at fence ends through September 2008

Cameras were downloaded twice in September. Batteries for these fence-end remote cameras were operational. Large animal occurrences photographed in September at the SE fence end: 1 deer passing by the end of the fence. At the NE fence end: 2 deer which walked inside the fence between the guardrail and the fence. The SE cameras also recorded several mice and the NE cameras recorded mice and rabbits.

The camera mounted under the bridge over Bear Canyon road at the western fence end under the I-90 bridge was downloaded on 11 September. Since July it has recorded: 6 deer, 5 birds, 1 dog, 3 men, and a parked vehicle.

Task 4: Photo monitoring at jump-outs through September 2008

We deployed older RECONYX cameras on September 5 at the SE and SW jumpouts. No large animals were photographed at the NE jumpout in September but 5 raccoons were recorded. We recorded several birds: about 20 crows, 10 magpies, and 10 robins. Occasionally a horse in the pasture below was photographed. No large animals were photographed at the NW jumpout in September: several crows, a pigeon and 2 cats were recorded. No large animals were photographed at the SE jumpout: 2 rabbits, 10

magpies, 1 crow, 1 raccoon, and 2 people were photographed. No animals at all were photographed at the SW jumpout. We set the sensitivity to medium which is sufficient so that vehicles do not trigger the camera, but sensitive enough that it records CERI personnel when they check the track bed.

Task 5: Track bed monitoring at fence ends, jump-outs through September 2008

Monitoring of fence ends and jump-outs continued through September with no records of animals exiting through the jump-outs. This was supported by camera data.

Task 6: Photo monitoring of culverts September 2008

High water and debris created a blockage across the east culvert that may have impeded travel by animals somewhat. We cleared a path on September 9. The east culvert camera was downloaded on September 12. Up to that time during July and September it recorded 48 separate raccoon events, 7 bird (water ouzel) events, 4 mink events, 3 humans other than CERI personnel, 2 beaver events, and one weasel. It will be informative to see if larger animals begin using the culvert in late September.

The camera in the west culvert took photos of birds (water ouzels) to date. At the end of September the water was still roughly 2 feet deep and probably discourages use by most animals.

Task 7: Opportunistic snow tracking at track bed, fence ends, jump-outs, and along the Interstate in September 2008.

We are not conducting snow tracking at the track bed, fence ends and jump-outs until winter.

Task 8: Data Management & Reporting in September 2008

Data entry and summary required four hours during September.

Discussion:

We will leave the parallel cameras at the fence ends to further judge their performance until winter. During September both cameras at each site recorded the same large animals. In preparation for winter we purchased some utility boxes and modified them to house the WTI cameras. Two of these were deployed at the jumpouts in September. Three more will be installed at the fence ends: including the camera under the bridge at the Bear Canyon exit. The cameras in the culvert are sufficiently protected from the weather and from theft that we will leave them as they are.

An invoice was submitted with this report for September expenses and activities. Currently the cumulative total billed to this project is \$24,826.28.